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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 4

Complete if Known	
Application Number	10/680,844
Filing Date	October 6, 2003
First Named Inventor	Ihab H. ELZIND
Art Unit	2821
Examiner Name	CHUC TRAN
Attorney Docket Number	PNTRD-00612

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
TC		US- 5,327,486-A	07-05-1994	Wolff, et al.	
TC		US- 5,793,762-A	08-11-1998	Penners, et al.	
TC		US- 5,657,326-A	08-12-1997	Burns, et al.	
TC		US- 5,353,283-A	10-04-1994	Tsuchiya	
TC		US- 5,673,031-A	09-30-1997	Meier	
TC		US- 5,159,592-A	10-27-1992	Perkins	
TC		US- 5,442,633-A	08-15-1995	Perkins, et al.	
TC		US- 5,533,029-A	07-02-1996	Gardner	
TC		US- 5,544,222-A	08-06-1996	Robinson, et al.	
TC		US- 5,590,133-A	12-31-1996	Billström, et al.	
TC		US- 5,606,595-A	02-25-1996	Ejzak	
TC		US- 5,713,075-A	01-27-1998	Threadgill et al.	
TC		US- 5,657,326-A	08-12-1997	Ramachandran et al.	
TC		US- 5,327,486-A	07-05-1994	Kramer et al.	
TC		US- 5,940,515-A	08-17-1999	Kasavaraju	
TC		US- 5,940,371-A	08-17-1999	Mitts, et al.	
TC		US- 5,930,236-A	07-27-1999	Havansi	
TC		US- 5,926,147-A	07-20-1999	Sehm, et al.	
TC		US- 5,920,705-A	07-06-1999	Lyon, et al.	

FOREIGN PATENT DOCUMENTS

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TC		WO-94/30038-A1	12-22-1994	COM 21, Inc.		
TC		EP-0 695 053-A2	01-31-1996	AT&T Corp.		
TC		WO-00/08788-A1	02-17-2000	ELZIND, Ihab H.		
TC		WO-00/48367-A2	08-17-2000	NOKIA WIRELESS ROUTERS, INC.		
TC		WO-00/21236-A1	04-13-2000	TELEFONAKTIEBOLAGET LM ERICSSON		
TC		WO-98/59468-A2	12-30-1998	NOKIA TELECOMMUNICATIONS OY		

Examiner Signature		Date Considered	10/12/05

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Sheet 2 of 4

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Examiner Name	CHUC TRAN
Attorney Docket Number	PNTRD-00612

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TC		US- 5,920,619-A	07-06-1999	Karppinen	
TC		US- 5,915,239-A	06-22-1999	Haavisto, et al.	
TC		US- 5,905,714-A	05-18-1999	Havansi	
TC		US- 5,889,852-A	03-30-1999	Rosecrans, et al.	
TC		US- 5,889,762-A	03-30-1999	Pajuvirta, et al.	
TC		US- 5,887,266-A	03-23-1999	Heinonen, et al.	
TC		US- 5,887,252-A	03-23-1999	Noneman	
TC		US- 5,884,103-A	03-16-1999	Terho, et al.	
TC		US- 5,864,550-A	01-26-1999	Posti	
TC		US- 5,862,492-A	01-19-1999	Leppanen, et al.	
TC		US- 5,845,192-A	12-01-1998	Saunders	
TC		US- 5,840,020-A	11-24-1998	Heinonen, et al.	
TC		US- 5,828,959-A	10-27-1998	Soderbacka	
TC		US- 5,809,018-A	09-15-1998	Lehmusto	
TC		US- 5,809,011-A	09-15-1998	Almay	
TC		US- 5,805,301-A	09-08-1998	Rasanen	
TC		US- 5,802,465-A	09-01-1998	Hamalainen, et al.	
TC		US- 5,799,243-A	08-25-1998	Ojaniemi	
TC		US- 5,793,744-A	08-11-1998	Kanerva, et al.	

FOREIGN PATENT DOCUMENTS

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TC		WO-99/33301-A1	07-01-1999	Nokia Mobile Phones Ltd.		
TC		WO-99/20021-A1	04-22-1999	NOKIA TELECOMMUNICATIONS OY		

Examiner Signature		Date Considered	10/12/05

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First Named Inventor	Ihab H. ELZIND
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Attorney Docket Number	PNTRD-00612

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TC		US-5,790,957-A	08-04-1998	Heidari	
TC		US-5,790,534-A	08-04-1998	Kokko, et al.	
TC		US-5,790,288-A	08-04-1998	Jager, et al.	
TC		US-5,774,804-A	06-30-1998	Williams	
TC		US-5,772,586-A	06-30-1998	Heinonen, et al.	
TC		US-5,752,201-A	05-12-1998	Kivari	
TC		US-5,722,074-A	02-24-1998	Muszynski	
TC		US-5,715,245-A	02-03-1998	Suonvieri	
TC		US-5,678,178-A	10-14-1997	Tahkokorpi	
TC		US-5,671,224-A	09-23-1997	Pyhalammi, et al.	
TC		US-5,648,962-A	07-15-1997	Pirinen	
TC		US-5,636,264-A	06-03-1997	Sulavuori, et al.	
TC		US-5,625,878-A	04-29-1997	Lopponen, et al.	
TC		US-5,623,484-A	04-22-1997	Muszynski	
TC		US-5,600,705-A	02-04-1997	Maenpaa	
TC		US-5,583,916-A	12-10-1996	Maenpaa	
TC		US-5,577,264-A	11-19-1996	Tuohino	
TC		US-5,577,102-A	11-19-1996	Koivunen	
TC		US-5,561,841-A	10-01-1996	Markus	

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TC		US-5,561,840-A	10-01-1996	Alvesalo, et al.	
TC		US-5,557,654-A	09-17-1996	Maenpaa	
TC		US-5,553,125-A	09-03-1996	Martensson	
TC		US-5,551,056-A	08-27-1996	Koponen, et al.	
TC		US-5,533,116-A	07-02-1996	Vesterinen	
TC		US-5,502,725-A	04-26-1996	Pohjakallio	
TC		US-5,483,668-A	01-09-1996	Malkamaki, et al.	
TC		US-5,450,487-A	10-12-1995	Lahdemaki, et al.	
TC		US-5,428,822-A	06-27-1995	Helenius, et al.	
TC		US-5,400,390-A	03-21-1995	Salin	
TC		US-5,337,344-A	08-09-1994	Alvesalo	
TC		US-5,237,561-A	08-17-1993	Pyhalammi	
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TC		US- 5,822,310-A	10-13-1998	Chennakeshu et al.	
TC		US- 6,229,486-B1	05-08-2001	Krile	
TC		US- 6,295,283-B1	09-25-2001	Falk	
TC		US- 2002/0075830-A1	06-20-2002	Hartman, JR.	
TC		US- 6,414,945-B1	07-02-2002	Chennakeshu et al.	
TC		US- 2002/0136170-A1	09-26-2003	Struhsaker	
TC		US- 6,668,174-B1	12-23-2003	Struhsaker et al.	
TC		US- 2004/0228297-A1	11-18-2004	Elzind	
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